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# Memorandum

**To:** Lower Minnesota River West – Comprehensive Watershed Management Partnership Policy Committee
**From:** Greg Williams, PE, Barr Engineering Co.
**Subject:** Draft implementation schedule for the Lower Minnesota River West Comprehensive Watershed Management Plan
**Date:** November 24, 2021
**Project:** 23721014
**c:**

The Lower Minnesota River West Comprehensive Watershed Management Partnership (Partnership) is in the process of developing a Comprehensive Watershed Management Plan (Plan) via the One Watershed, One Plan (1W1P) framework. The implementation schedule is a key component of that Plan and outlines, at a planning level, the activities the partners will perform over the 10-year life of the Plan.

The Barr and SEH team, with input from Sibley Soil and Water Conservation District (SWCD) staff, developed the attached draft implementation schedule (November 24, 2021 version) as a first attempt. The attached table is organized similarly to the goals table, with activities organized according to the primary issues the activity is intended to address, including:

- Accelerated erosion and sedimentation
- Degraded surface water quality
- Altered hydrology and drainage
- Excessive flooding

**Tier I Issues**

- Degraded soil health
- Protection of groundwater and drinking water quality

**Tier II Issues**

- Threatened groundwater supply
- Threats to fish, wildlife, and habitat

**Tier III Issues**

A ninth category is included in the table to house "Administrative" activities related to the maintenance and operation of the partnership.

The implementation table includes the following items for each activity:

- **Activity ID** – a unique identifier for each activity based on the issue area and number
- **Activity description** – a brief summary of each activity
- **Activity type** – activities are classified as "projects", "studies", "education" or "regulatory" (note: regulatory activities include coordination of existing regulatory roles and are not intended to add regulatory authority of the partnership)
- **Applicable Goals** – cross reference to applicable goals from the goals table

- **Applicable issue areas** – direct ( ) and indirect (o) benefits of the activity are indicated for each applicable issue area
- **Target or focus area** – geography/resource where the activity will be targeted or target audience
- **Measurable output –** outputs of the implementation activity
- **Timeframe –** planned implementation (and outputs, if applicable) is shown over five 2-year periods (to reflect funding periods)
- **Estimated total cost** – estimated planning level cost over 10 years
- **Estimated local cost** – estimated planning level cost born by local sources (e.g., SWCD budgets)
- **Estimated external funds** – includes state and federal grants and watershed-based implementation funding (WBIF)
- **Lead LGU** – member(s) of the 1W1P partnership expected to lead the activity
- **Supporting entities** – entities outside the 1W1P partnership that may be involved

For some activities, red text has been used to indicate what might be achieved above and beyond the expected implementation (i.e., values in black text) if additional funding becomes available. For these activities, the increased implementation scenario is reflected in the measurable outputs and estimated costs.

Please note that this information is presented in draft form for Policy Committee consideration. At this stage in Plan development, Policy Committee review and comment on the draft implementation schedule is important to confirm that critical actions are not left out of the Plan, important actions are given the appropriate weight and resources, and lower-priority actions are not given disproportionate consideration. Following Policy Committee review, the draft implementation schedule will be provided to the Steering Team and Advisory Team for discussion and feedback at a joint workshop.

Table X Lower Minnesota River West Comprehensive Watershed Management Plan Implementation Schedule version 1 - 11/24/2021

| Item ID | Implementation Action Description | Type (P = Project S = Study E = Educ. R = Reg.) | Applicable Goals (see Table X-X) | Applicability to Goal Areas: Tier 1 – Degraded Surface Water Quality | Tier 1 – Accelerated Erosion and Sedimentation | Tier 1 – Altered Hydrology | Tier 1 – Excessive Flooding | Tier 2 – Degraded Soil Health | Tier 2 – Groundwater Contamination | Tier 3 – Threatened Groundwater Supply | Tier 3 – Threats to Fish, Wildlife, and Habitat | Target or Focus Area | Measurable Output | Timeframe (Values are incremental for each 2-year period): 2023 to 2024 | 2025 to 2026 | 2027 to 2028 | 2029 to 2030 | 2031 to 2032 | Estimated Total Cost | Estimated Local Contribution (landowner, SCWD/County locally budgeted/ assessed) | Estimated External Contribution (WBIF, competitive grants, federal, 319) | Lead LGU | Supporting Entities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Red text indicates higher level of planned implementation if additional external funding becomes available | | | | | | | | | | |
| ADM-1 | Develop template education materials and branding for consistent messaging between partners | E | | ● | ● | ● | ● | ● | ● | O | ● | Planning Area | Templates, Branding | X | | | | | $ 5,000 | $ 2,500 | $ 2,500 | All Partners | BWSR |
| ADM-2 | Annual work planning, budgeting, and reporting | S | All (indirectly) | ● | ● | ● | ● | ● | ● | O | ● | Planning Area | Work plans, Annual report (1 per year) | X | X | X | X | X | $ 600,000 | $ 300,000 | $ 300,000 | All Partners | BWSR |
| ADM-3 | Interim progress assessment and possible amendment | S | All (indirectly) | ● | ● | ● | ● | ● | ● | O | ● | Planning Area | Interim assessment report | | | X | | | $ 50,000 | $ 50,000 | $ - | All Partners | BWSR |
| | | | | | | | | | | | | | | | | | ADM SUBTOTAL: | | $ 655,000 | $ 352,500 | $ 302,500 | | |
| ESC-2 | Distribute educational materials promoting the establishment, maintenance, and effectiveness of buffers | E | ESC-2 | O | ● | O | | | | | O | Watershed-wide | Handouts; Pamphlets; News Articles | X | X | X | X | X | $ 5,000 | $ 5,000 | $ - | SWCD County | BWSR |
| ESC-3 | Perform site visits to critical areas to engage landowners regarding buffer implementation (site visits to difficult, hard to maintain areas and also successful, exemplary sites to extrapolate to others.) | E | ESC-2 | O | ● | O | | | | | O | Riparian Areas | Site Visits | 10 | 10 | 10 | 10 | 10 | $ 25,000 | $ 25,000 | $ - | SWCD | BWSR |
| ESC-4 | Implement projects to stabilize or restore degraded streambank areas (in addition to project sites identified in item SWQ-1) | P | ESC-3 | O | ● | O | O | | | | O | See ESC-8; Rush River, High Island Creek, tributaries | Number of projects; total restored feet | 10 projects and/or up to 5,000 feet | | | | | $ 750,000 | $ 250,000 | $ 500,000 | SWCD County | MDNR MPCA |
| | | | | | | | | | | | | | | 20 projects and/or up to 10,000 feet | | | | | $ 1,500,000 | $ 375,000 | $ 1,125,000 | | |
| ESC-5 | Provide technical support for landowner projects to stabilize streambanks using natural design, in coordination with MDNR | P | ESC-3 | O | ● | O | O | | | | O | See ESC-8; Rush River, High Island Creek, tributaries | Number of projects; total restored feet | 10 projects and/or up to 5,000 feet | | | | | $ 100,000 | $ 100,000 | $ - | SWCD County | MDNR MPCA |
| ESC-6 | Implement and/or expand cost share assistance programs to promote maintenance and increased use of BMPs focused on soil health (e.g., cover crops, conservation tillage - defined as no-till and strip-till) | P | ESC-1, ESC-4, ESC-5, SLH-4 | O | ● | O | O | O | | | | Cropland in Level 1 and 2 Project Areas (see Figure X) | Number of acres added to soil health practices (>2000 over 10 years) | 300 ac added | 350 ac added | 400 ac added | 450 ac added | 500 ac added | $ 300,000 | $ 100,000 | $ 200,000 | SWCD | NRCS MDA BWSR |
| | | | | | | | | | | | | | (3000 acres over 10 years) | 400 ac added | 500 ac added | 600 ac added | 700 ac added | 800 ac added | $ 450,000 | $ 100,000 | $ 350,000 | | |
| ESC-7 | Host outreach events for agri-business to promote soil health practices | E | ESC-4 | | ● | | | O | | | | Watershed-wide | 1 Outreach event per year | 2 | 2 | 2 | 2 | 2 | $ 10,000 | $ 10,000 | $ - | SWCD | NRCS MDA BWSR |
| ESC-8 | Watershed evaluation of streambank areas to determine priority restoration areas (leveraging HSPF and other model results, in partnership with MDNR) | S | ESC-3 | ● | ● | O | | | | | O | Watershed-wide | Identification of priority areas | X | | | | | $ 10,000 | $ 5,000 | $ 5,000 | SWCD | MDNR BWSR |
| ESC-9 | Maintain impoundments in the High Island Lake Watershed District to minimize sediment loss and flood risk?? | P | ESC-3 | O | ● | | O | | | | | High Island Lake Watershed District | Maintenance projects (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 100,000 | $ 100,000 | $ - | HICWD | SWCD MDNR |
| | | | | | | | | | | | | | | | | | ESC SUBTOTAL | | $ 1,300,000 | $ 595,000 | $ 705,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 2,200,000 | $ 720,000 | $ 1,480,000 | | |
| SWQ-1 | Implement **BMPs** at protect/restore level 1 and 2 sites identified through terrain analyses (see **Figure X**) to reduce erosion and filter pollutants; specific BMPs to be determined based on site-specific feasibility, with target implementation by subwatershed as follows: | P | SWQ-1, SWQ-2, SWQ-3, ESC-5, SWQ-4, SWQ-5, SWQ-6 | ● | ● | O | O | O | O | O | O | Level 1, 2, 3 Project Areas (see Figure 4-1) | Number of projects implemented and corresponding reduction in pollutant loading | Numbers below indicate planned number of projects per biennium, by watershed | | | | | See below | See below | See below | SWCD County | MDNR NRCS BWSR MDA |
| | High Island Creek Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 500,000 | $ 125,000 | $ 375,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 750,000 | $ 125,000 | $ 625,000 | | |
| | North Branch Rush River Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 860,000 | $ 215,000 | $ 645,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 1,290,000 | $ 322,500 | $ 967,500 | | |
| | Middle Branch Rush River Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 620,000 | $ 155,000 | $ 465,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 930,000 | $ 232,500 | $ 697,500 | | |
| | South Branch Rush River Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 560,000 | $ 140,000 | $ 420,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 840,000 | $ 210,000 | $ 630,000 | | |
| | NE Sibley/Bevens Creek Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 800,000 | $ 200,000 | $ 600,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 1,200,000 | $ 300,000 | $ 900,000 | | |
| | Minnesota River Level 1-2 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 1 and 2 | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 80,000 | $ 20,000 | $ 60,000 | | |
| | | | | | | | | | | | | | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 120,000 | $ 20,000 | $ 100,000 | | |
| | High Island Creek Level 3 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 125,000 | $ 31,250 | $ 93,750 | | |
| | | | | | | | | | | | | | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 250,000 | $ 31,250 | $ 218,750 | | |
| | North Branch Rush River Level 3 Areas | P | SWQ-1, SWQ-2, SWQ- | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 215,000 | $ 53,750 | $ 161,250 | | |

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| Item ID | Implementation Action Description | Type (P = Project S = Study E = Educ. R = Reg.) | Applicable Goals (see Table X-X) | Applicability to Goal Areas: Tier 1 – Degraded Surface Water Quality | Tier 1 – Accelerated Erosion and Sedimentation | Tier 1 – Altered Hydrology | Tier 1 – Excessive Flooding | Tier 2 – Degraded Soil Health | Tier 2 – Groundwater Contamination | Tier 3 – Threatened Groundwater Supply | Tier 3 – Threats to Fish, Wildlife, and Habitat | Target or Focus Area | Measurable Output | Timeframe (Values are incremental for each 2-year period): 2023 to 2024 | 2025 to 2026 | 2027 to 2028 | 2029 to 2030 | 2031 to 2032 | Estimated Total Cost | Estimated Local Contribution (landowner, SCWD/County locally budgeted/ assessed) | Estimated External Contribution (WBIF, competitive grants, federal, 319) | Lead LGU | Supporting Entities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Branch Rush River Level 3 Areas | P | 3, ESC-5 | | | | | | | | | Level 3 | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 430,000 | $ 107,500 | $ 322,500 | | |
| | Middle Branch Rush River Level 3 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 155,000 | $ 38,750 | $ 116,250 | | |
| | | | | | | | | | | | | | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 310,000 | $ 77,500 | $ 232,500 | | |
| | South Branch Rush River Level 3 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 140,000 | $ 35,000 | $ 105,000 | | |
| | | | | | | | | | | | | | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 280,000 | $ 70,000 | $ 210,000 | | |
| | NE Sibley/Bevens Creek Level 3 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 200,000 | $ 50,000 | $ 150,000 | | |
| | | | | | | | | | | | | | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 400,000 | $ 100,000 | $ 300,000 | | |
| | Minnesota River Level 3 Areas | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | O | O | O | O | O | O | Level 3 | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 20,000 | $ 5,000 | $ 15,000 | | |
| | | | | | | | | | | | | | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 40,000 | $ 5,000 | $ 35,000 | | |
| | Total (with base funding | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | | | | | | | | | | 150 projects over 10 years | **30** | **30** | **30** | **30** | **30** | **$ 4,275,000** | **$ 1,068,750** | **$ 3,206,250** | | |
| | Total (with additional funding) | | | | | | | | | | | | 240 projects over 10 years | **48** | **48** | **48** | **48** | **48** | **$ 6,840,000** | **$ 1,601,250** | **$ 5,238,750** | | |
| SWQ-2 | Perform feasibility studies to design in-lake phosphorus reduction projects to address nutrient-impairments of Titlow, Silver, Clear, and High Island Lake | S | SWQ-1 | ● | | | | | | | O | Clear Lake, High Island Lake, Silver Lake, Titlow Lake | Feasibility studies | X | | | | | $ 80,000 | $ 20,000 | $ 60,000 | Sibley SWCD Nicollet SWCD | MPCA MDNR |
| SWQ-3 | Implement projects to reduce internal loading of phosphorus in Titlow, Silver, Clear, and High Island Lakes | P | SWQ-1 | ● | | | | | | | O | Clear Lake, High Island Lake, Silver Lake, Titlow Lake | 4 projects over 10 years | | 1 | 1 | 1 | 1 | $ 300,000 | $ 75,000 | $ 225,000 | Sibley SWCD Nicollet SWCD | MPCA MDNR |
| SWQ-4 | Support projects to reduce phosphorus and sediment loading in residential stormwater runoff via cost share | P | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | | O | | | ● | | Cities/townships | 30 projects over 10 years | 6 | 6 | 6 | 6 | 6 | $ 30,000 | $ 6,000 | $ 24,000 | SWCDs | MPCA Cities |
| SWQ-6 | Perform field verification of proposed project sites identified through terrain analysis (see Figure X) to verify problems and evaluate feasibility | S | SWQ-1, SWQ-2, SWQ-3, ESC-5 | ● | ● | | O | O | | O | O | Level 1 and 2 Project Areas (see Figure X) | Inventory of feasibility sites for future implementation | X | X | | | | $ 50,000 | $ 50,000 | $ - | SWCD | MDNR MPCA |
| SWQ-7 | Coordinate with MPCA and other state agencies to tailor agency monitoring plan(s) to focus on critical stressors for local priorities (e.g., nutrients, sediment, bacteria, biological impairments). | S | SWQ-1, SWQ-2, SWQ-3, SWQ-4, SWQ-5, SWQ-6, SWQ-7 | ● | | | | | | | ● | Watershed-wide | Monitoring Plan | X | | | | | $ 10,000 | $ 10,000 | $ - | SWCD | MPCA |
| SWQ-8 | Provide financial assistance to implement animal waste management systems to reduce waste loading to streams | P | SWQ-6 | ● | | | | | ● | | | Subwatersheds with bacterial impairments | Number of assisted feedlots (20 over 10 years) | 4 | 4 | 4 | 4 | 4 | $ 2,000,000 | $ 600,000 | $ 1,400,000 | County SWCD | NRCS MPCA MDA |
| | | | | | | | | | | | | | | | | | **SWQ SUBTOTAL** | | **$ 6,745,000** | **$ 1,829,750** | **$ 4,915,250** | | |
| | | | | | | | | | | | | | | | | | | | **$ 9,310,000** | **$ 2,362,250** | **$ 6,947,750** | | |
| ADH-1 | Maintain an inventory of tile drainage within the watershed to apply for multipurpose drainage management (MDM) grants | S | ADH-6 | | | ● | O | | | | | Watershed-wide | Tile drainage inventory | X | X | X | X | X | $ 40,000 | $ 40,000 | $ - | County | BWSR MDNR |
| ADH-2 | Host outreach events to promote application and interest in multipurpose drainage projects. | E | ADH-5, ADH-6 | O | O | ● | O | O | | | | Watershed-wide | 10 events over 10 years | 2 | 2 | 2 | 2 | 2 | $ 20,000 | $ 20,000 | $ - | County SWCD | BWSR MDNR |
| ADH-3 | Implement multipurpose drainage projects for public ditches in priority areas to mitigate adverse impacts to hydrology and water quality | P | ADH-6 | O | O | ● | O | | | | O | Level 1 and 2 priority areas (see Figure X) | 10 projects over 10 years | 2 | 2 | 2 | 2 | 2 | $ 1,000,000 | $ 500,000 | $ 500,000 | County SWCD | NRCS MPCA MDA |
| | | | | | | | | | | | | | 15 projects over 10 years | 3 | 3 | 3 | 3 | 3 | $ 1,500,000 | $ 500,000 | $ 1,000,000 | | |
| ADH-4 | Support (through cost-share) the implementation of tile outlet BMPs to mitigate hydrologic impacts of upstream tile systems | P | ADH-3 | O | O | ● | O | | | | O | Level 1 and 2 priority areas (see Figure X) | 50 projects over 10 years | 10 | 10 | 10 | 10 | 10 | $ 1,250,000 | $ 312,500 | $ 937,500 | County SWCD | NRCS MPCA MDA |
| | | | | | | | | | | | | | 70 projects over 10 years | 14 | 14 | 14 | 14 | 14 | $ 1,750,000 | $ 437,500 | $ 1,312,500 | | |
| ADH-5 | Support (through cost-share) the drainage water management projects to mitigate altered hydrology | P | ADH-5 | O | O | ● | O | | | | O | Level 1 and 2 priority areas (see Figure X) | 50 projects over 10 years | 10 | 10 | 10 | 10 | 10 | $ 1,250,000 | $ 312,500 | $ 937,500 | County SWCD | NRCS MPCA MDA |
| | | | | | | | | | | | | | 70 projects over 10 years | 14 | 14 | 14 | 14 | 14 | $ 1,750,000 | $ 437,500 | $ 1,312,500 | | |
| ADH-6 | Host or support outreach events to promote low-impact design, water conservation, and other practices to mimic natural hydrology | E | ADH-4 | O | O | ● | O | | | O | | Municipalities | 10 events over 10 years | 2 | 2 | 2 | 2 | 2 | $ 20,000 | $ 20,000 | $ - | SWCD | NRCS MPCA MDA |
| ADH-7 | Meet with owners of tiled land to make them aware of potential mitigation options, new tools, practices, to reduce runoff | E | ADH-3, ADH-5 | O | O | ● | O | O | | | | Level 1 and 2 priority areas (see Figure X) | Meet with 200 landowners over 10 years | 40 | 40 | 40 | 40 | 40 | $ 100,000 | $ 100,000 | $ - | SCWD | NRCS MPCA MDA |
| ADH-8 | Meet with drainage authorities at least annually to review permitting processes, performance standards, and coordinate messaging | R | ADH-6 | | | ● | O | | | | | Watershed-wide | Meetings (at least 1 per year) | 2 | 2 | 2 | 2 | 2 | $ 10,000 | $ 10,000 | $ - | County | NRCS MPCA MDA |
| ADH-9 | Identify priority opportunities for enrollment in conservation programs | S | ADH-9 | O | | ● | O | | | | ● | Level 1 and 2 Areas (see Figure X) | Inventory of priority opportunities | X | | | | | $ 20,000 | $ 20,000 | $ - | SWCD | BWSR NRCS |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADH-10 | Targeted outreach to landowners in priority areas regarding conservation programs | E | AFH-7, ADH-8, ADH-9, FWH-3 | | | | | | | | | Level 1 and 2 Areas (see Figure X) | 3 workshops/year; target 100 landowners over 10 years | 20 | 20 | 20 | 20 | 20 | $ 50,000 | $ 50,000 | $ - | SWCD | BWSR NRCS |
| ADH-11 | Promote enrollment in conservation programs through distribution of educational materials, hosting workshops, and/or targeted field visits | E | ADH-2, ADH-7, ADH-8, ADH-9, FWH-3 | O | | ● | O | | | | O | See LR-9 | 2,000 acres (4,000 acres) enrolled over 10 years | 150 | 350 acres | 500 acres | 500 acres | 500 acres | $ 300,000 | $ 150,000 | $ 150,000 | SWCD | MDNR NRCS |
| | | | | | | | | | | | | | | 200 acres | 500 acres | 800 acres | 1,100 acres | 1,400 acres | $ 400,000 | $ 150,000 | $ 250,000 | | |
| ADH-12 | Review and recommend revisions for wetland protection ordinances to ensure adequate protection | R | ADH-8, FWH-1 | O | | ● | O | | | | O | Watershed-wide | Updated Ordinance(s) | | X | | | | $ 10,000 | $ 10,000 | $ - | County | BWSR MDNR |
| ADH-13 | Targeted outreach to landowners with high priority wetland areas, including workshops and site visits | E | ADH-8, FWH-1 | O | | ● | O | | | | O | Level 1 and 2 Areas (see Figure X) | Target 100 landowners (200 landowners in 10 years) | 20 | 20 | 20 | 20 | 20 | $ 50,000 | $ 25,000 | $ 25,000 | SWCD | BWSR MDNR |
| | | | | | | | | | | | | | | 40 | 40 | 40 | 40 | 40 | $ 100,000 | $ 25,000 | $ 75,000 | | |
| ADH-14 | Identify and Implement high priority wetland restoration projects in coordination with willing landowners | P | ADH-8, FWH-1 | O | | ● | O | | | | O | Level 1 and 2 Areas (see Figure X) | Inventory of opportunities; 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 250,000 | $ 125,000 | $ 125,000 | SWCD | BWSR MDNR |
| | | | | | | | | | | | | | | | | | ADH SUBTOTAL | | $ 4,370,000 | $ 1,695,000 | $ 2,675,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 6,020,000 | $ 1,945,000 | $ 4,075,000 | | |
| FLD-1 | Implement projects to increase headwater storage and/or reduce peak flow rates at priority locations identified in below subwatersheds | P | FLD-1, ESC-1, AHD-1 | O | O | | ● | O | | | | Level 1 and 2 Areas (see Figure X) | Number of projects implemented and corresponding increase in storage | Numbers below indicate storage anticipated per biennium, by watershed | | | | | See SWQ-1 | See SWQ-1 | See SWQ-1 | SWCD County | MDNR MPCA |
| | High Island Creek Level 1-2 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 20 projects over 10 years | Specific quantity and location of increased storage will be updated based on results of implementation item FLD-6 and SWQ-1 incorporating storage and/or runoff reduction | | | | | Costs included with SWQ-1 and other implementation items | Costs included with SWQ-1 and other implementation items | Costs included with SWQ-1 and other implementation items | SWCD County HICWD | MDNR MPCA |
| | South Branch Rush River Level 1-2 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 20 projects over 10 years | | | | | | | | | | |
| | Middle Branch Rush River Level 1-2 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 20 projects over 10 years | | | | | | | | | | |
| | South Branch Rush River Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | NE Sibley/Bevens Creek Level 1-2 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 20 projects over 10 years | | | | | | | | | | |
| | Minnesota River Level 1-2 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 20 projects over 10 years | | | | | | | | | | |
| | High Island Creek Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | South Branch Rush River Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | Middle Branch Rush River Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | South Branch Rush River Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | NE Sibley/Bevens Creek Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| | Minnesota River Level 3 Areas | P | FLD-1 | O | O | | ● | O | | | | | Up tp 5 projects over 10 years | | | | | | | | | | |
| FLD-2 | Use results of available modeling to define floodplain and work with partners to prioritize areas of highest flood risk for further feasibility studies | S | FLD-2 | | | | ● | | | | | Watershed-wide | Prioritized inventory of flood risk areas | | X | | | | $ 25,000 | $ 25,000 | $ - | SWCD | MDNR |
| FLD-3 | Develop/revise hydrologic and hydraulic models, if necessary, to characterize flood risk in priority areas and identify possible solutions | S | FLD-2 | | | | ● | | | | | See FLD-2 | Hydrologic and hydraulic model/analyses | X | X | X | | | $ 150,000 | $ 150,000 | $ - | SWCD | MDNR |
| FLD-4 | Use results of hydrologic and hydraulic modeling/analyses to refine storage and flow rate reduction goals for subwatersheds and identify priority locations for storage practices (see FL-3) | S | FLD-2 | O | O | | ● | | O | | | Watershed-wide | Subwatershed storage and flow rate goals | | | X | | | $ 50,000 | $ 50,000 | $ - | SWCD County | MDNR |
| FLD-5 | Review and recommend revisions for floodplain ordinances to ensure adequate protection of floodplain functions | R | FLD-3 | | | O | ● | | | | | Watershed-wide | Ordinance revision recommendations | X | | | | | $ 10,000 | $ 10,000 | $ - | County | MDNR |
| FLD-6 | Develop an inventory of floodplain reconnection/ restoration opportunities and completed upstream projects | S | FLD-3 | | | ● | O | | | | O | Watershed-wide | Inventory of opportunities | X | | | | | $ 20,000 | $ 20,000 | $ - | SWCD | BWSR MDNR |
| FLD-7 | Implement projects to reconnect or restore disconnected floodplain areas to increase flood resilience (including cooperative efforts with MDNR) | P | FLD-3, FLD-4 | | | ● | ● | | | | O | Floodplains (emphasizing lower Rush River and High Island Creek) | 6 projects over 10 years 8 projects over 10 years | | | 2 | 2 | 2 | $ 500,000 | $ 250,000 | $ 250,000 | SWCD | MDNR |
| | | | | | | | | | | | | | | | | | 1 | 1 | $ 680,000 | $ 250,000 | $ 430,000 | | |
| FLD-8 | Provide technical assistance and education for landowners regarding maintenance or removal of field dikes through targeted site visit (applicable here?) | E | FLD-4 | | | ● | ● | | | | O | Floodplains | Site visits (5 per year) | 10 | 10 | 10 | 10 | 10 | $ 25,000 | $ 25,000 | $ - | SWCD | MDNR |
| FLD-9 | Support landowner flood risk mitigation projects through cost-share grant program and technical assistance. | P | FLD-4 | | | | ● | | | | | Floodplains | 20 projects over 10 years | 4 | 4 | 4 | 4 | 4 | $ 100,000 | $ 20,000 | $ 80,000 | SWCD | MDNR |

Table X Lower Minnesota River West Comprehensive Watershed Management Plan Implementation Schedule version 1 - 11/24/2021

| Item ID | Implementation Action Description | Type (P = Project S = Study E = Educ. R = Reg.) | Applicable Goals (see Table X-X) | Applicability to Goal Areas: Tier 1 – Degraded Surface Water Quality | Tier 1 – Accelerated Erosion and Sedimentation | Tier 1 – Altered Hydrology | Tier 1 – Excessive Flooding | Tier 2 – Degraded Soil Health | Tier 2 – Groundwater Contamination | Tier 3 – Threatened Groundwater Supply | Tier 3 – Threats to Fish, Wildlife, and Habitat | Target or Focus Area | Measurable Output | Timeframe (Values are incremental for each 2-year period) 2023 to 2024 | 2025 to 2026 | 2027 to 2028 | 2029 to 2030 | 2031 to 2032 | Estimated Total Cost | Estimated Local Contribution (landowner, SCWD/County locally budgeted/ assessed) | Estimated External Contribution (WBIF, competitive grants, federal, 319) | Lead LGU | Supporting Entities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FLD-10 | Compile data on problem culverts from counties and toad authorities based on existing inventories; meet with Partner public works departments annually to coordinate infrastructure improvements | S | FLD-2, FLD-4 | | O | ● | ● | | | | | Watershed-wide | Problem area database; meetings with PW depts | X | X | X | X | X | $ 20,000 | $ 20,000 | $ - | County | MnDOT |
| | | | | | | | | | | | | | | | | | FLD SUBTOTAL | | $ 900,000 | $ 570,000 | $ 330,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 1,080,000 | $ 570,000 | $ 510,000 | | |
| SLH-1 | Develop an inventory of soil health practices (e.g., cover crops, perennial vegetation) within the planning area to assess extent and gaps | S | SLH-1 | O | ● | O | O | ● | O | O | | Watershed-wide | Inventory of soil health best practices | X | X | X | X | X | $ 50,000 | $ 50,000 | $ - | SWCD | BWSR NRCS MDA MOSH |
| SLH-2 | Assess/quantify the runoff reduction, water quality, water storage, and groundwater protection benefits of cover crops, perennial vegetation, and other soil health practices in the planning area, building on existing analysis at state level | S | SLH-1 | O | ● | O | O | ● | O | O | | Soil health focus areas (to be determined) | Study; numeric benefit estimates | X | X | X | X | X | $ 50,000 | $ 50,000 | $ - | SWCD | BWSR NRCS MDA MOSH |
| SLH-3 | Engage stakeholders through targeted outreach to identify barriers to adoption of soil health practices and strategies ways to overcome barriers | E | SLH-2 | O | ● | O | O | ● | O | O | | Watershed-wide | Report on barriers to adoption and strategies to address | X | | | | | $ 5,000 | $ 2,500 | $ 2,500 | SWCD | BWSR MDA MOSH NRCS |
| SLH-4 | Convene and support a group of local producers to champion and demonstrate implementation of soil health practices in the planning area | E | SLH-3 | O | ● | O | O | ● | O | O | | Watershed-wide | Meetings; technical support | X | X | X | X | X | $ 10,000 | $ 10,000 | $ - | SWCD | BWSR MDA MOSH NRCS |
| SLH-5 | Distribute education materials promoting the use of BMPs focused on soil health (e.g., cover crops, perennial vegetation, conservation tillage) and ad loans for equipment to support conservation till strategies | E | SLH-3 | O | O | | O | ● | O | O | | Watershed-wide | News Articles; digital communications (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 5,000 | $ 2,500 | $ 2,500 | SWCD | BWSR MDA MOSH NRCS |
| SLH-6 | Implement demonstration projects to show impact and implementation of soil health practices | P | SLH-3, SLH-4 | O | O | | O | ● | O | O | | Watershed-wide | 5 projects over 10 years | 1 | 1 | 1 | 1 | 1 | $ 100,000 | $ 50,000 | $ 50,000 | SWCD | BWSR NRCS MDA MOSH |
| SLH-7 | Host field days to demonstrate and promote soil health practices | E | SLH-3, SLH-4 | O | O | | O | ● | O | O | | Watershed-wide | 20 field day events over 10 years | 4 | 4 | 4 | 4 | 4 | $ 40,000 | $ 20,000 | $ 20,000 | SWCD | BWSR MDA MOSH NRCS |
| SLH-8 | Host outreach events with agra-businesses to promote soil health | E | SLH-3, SLH-4 | O | O | | O | ● | O | O | | Watershed-wide | 1 event per year | 2 | 2 | 2 | 2 | 2 | $ 20,000 | $ 10,000 | $ 10,000 | SWCD | BWSR NRCS MDA MOSH |
| | | | | | | | | | | | | | | | | | SLH SUBTOTAL | | $ 280,000 | $ 195,000 | $ 85,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 280,000 | $ 195,000 | $ 85,000 | | |
| GWQ-1 | Provide financial assistance to seal abandoned or unused **private wells,** prioritizing areas with higher aquifer vulnerability and DWSMAs | P | GWQ-5 | | | | | | ● | | | Watershed-wide (focus on DWSMAs) | Number of sealed wells (10 per year) | 20 | 20 | 20 | 20 | 20 | $ 100,000 | $ 50,000 | $ 50,000 | County SWCD | MDH |
| | | | | | | | | | | | | | (20 per year) | 40 | 40 | 40 | 40 | 40 | $ 200,000 | $ 50,000 | $ 150,000 | | |
| GWQ-2 | Seal abandoned or unused **high-capacity wells**, prioritizing areas with higher aquifer vulnerability and DWSMAs | P | GWQ-5 | | | | | | ● | | | Watershed-wide (focus on DWSMAs) | Number of sealed wells (2 over 10 years) | 2 high capacity wells over 10 years | | | | | $ 20,000 | $ 10,000 | $ 10,000 | County | Cities MDH |
| | | | | | | | | | | | | | (4 over 10 years) | 4 high capacity wells over 10 years | | | | | $ 40,000 | $ 10,000 | $ 30,000 | | |
| GWQ-3 | Implement practices to reduce or limit nitrate movement into groundwater (e.g., nutrient management, cover crops, saturated buffers, two-stage ditches, wetland restoration) | P | GWQ-3 | O | O | O | O | O | ● | | | Watershed-wide | Number of projects incorporating nitrogen reduction | See SWQ-1 actions; ESC-6 actions | | | | | See SWQ-1, SWQ-2, SWQ-4 | See SWQ-1, SWQ-2, SWQ-4 | See SWQ-1, SWQ-2, SWQ-4 | SWCD | County NRCS MDA |
| GWQ-4 | Cooperate with agricultural producers to develop site-specific nutrient, fertilizer, and/or manure management plans | P | GWQ-3, GWQ-4 | O | | | | O | ● | | | Watershed-wide | Nutrient management plans (50 over 10 years) | 10 | 10 | 10 | 10 | 10 | $ 100,000 | $ 50,000 | $ 50,000 | SWCD | MDA MPCA NRCS |
| | | | | | | | | | | | | | (80 over 10 years) | 16 | 16 | 16 | 16 | 16 | $ 160,000 | $ 50,000 | $ 110,000 | | |
| GWQ-5 | Provide financial assistance for repair or replacement of non-functioning SSTS, and assistance for landowners to apply for loans to address SSTS issues | P | GWQ-4 | ● | | | | | ● | | | Watershed-wide (focus on DWSMAs) | Number of addressed SSTS (25 per year) | 50 | 50 | 50 | 50 | 50 | $ 500,000 | $ 350,000 | $ 150,000 | County | MPCA |
| | | | | | | | | | | | | | (40 per year); loan assistance | 80 | 80 | 80 | 80 | 80 | $ 800,000 | $ 350,000 | $ 450,000 | | |
| GWQ-6 | Provide assistance for landowners to apply for loans to address SSTS issues | P | GWQ-4 | ● | | | | | ● | | | Watershed-wide (focus on DWSMAs) | Loan assistance | X | X | X | X | X | $ 10,000 | $ 10,000 | $ - | County | MDH MDA |
| GWQ-7 | Provide free and/or reduced cost well testing in groundwater quality priority areas, targeting non-community public suppliers (transient and non-transient) | S | GWQ-1 | | | | | | ● | | | Watershed-wide | Number of wells sampled (500 over 10 years) | 100 | 100 | 100 | 100 | 100 | $ 50,000 | $ 50,000 | $ - | County | MDH MDA |
| | | | | | | | | | | | | | (1,000 over 10 years) | 200 | 200 | 200 | 200 | 200 | $ 100,000 | $ 50,000 | $ 50,000 | | |

Table X Lower Minnesota River West Comprehensive Watershed Management Plan Implementation Schedule version 1 - 11/24/2021

| Item ID | Implementation Action Description | Type (P = Project S = Study E = Educ. R = Reg.) | Applicable Goals (see Table X-X) | Applicability to Goal Areas: Tier 1 – Degraded Surface Water Quality | Tier 1 – Accelerated Erosion and Sedimentation | Tier 1 – Altered Hydrology | Tier 1 – Excessive Flooding | Tier 2 – Degraded Soil Health | Tier 2 – Groundwater Contamination | Tier 3 – Threatened Groundwater Supply | Tier 3 – Threats to Fish, Wildlife, and Habitat | Target or Focus Area | Measurable Output | Timeframe (Values are incremental for each 2-year period): 2023 to 2024 | 2025 to 2026 | 2027 to 2028 | 2029 to 2030 | 2031 to 2032 | Estimated Total Cost | Estimated Local Contribution (landowner, SCWD/County locally budgeted/ assessed) | Estimated External Contribution (WBIF, competitive grants, federal, 319) | Lead LGU | Supporting Entities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWQ-8 | Develop a comprehensive strategy for groundwater monitoring and assessment within the watershed in coordination with MDH | S | GWQ-2 | | | | | | ● | ● | | Watershed-wide | Monitoring Plan | X | | | | | $ 10,000 | $ 10,000 | $ - | SWCD | County MDH MDA |
| GWQ-9 | Monitor private groundwater wells for nitrate, arsenic, and other contaminants | S | GWQ-1 | | | | | | ● | | | Watershed-wide | Groundwater monitoring report(s) | X | X | X | X | X | $ 100,000 | $ 50,000 | $ 50,000 | County | MDH MDA |
| GWQ-10 | Work with state agencies to compile and maintain a local database of groundwater quality data | S | GWQ-2 | | | | | | ● | | | Watershed-wide | Additions to monitoring database | X | X | X | X | X | $ 20,000 | $ 20,000 | $ - | County | MDH MDA |
| GWQ-11 | Work with state partners to assess groundwater quality data, identify trends in nitrate concentrations in residential wells, and identify priority action areas | S | GWQ-2 | | | | | | ● | ● | | Watershed-wide | Trend analyses; priority action areas | | X | | | | $ 20,000 | $ 20,000 | $ - | SWCD County | County MDH, MDA MDA, MPCA |
| GWQ-12 | Distribute education materials increasing resident awareness of, and promoting practices to reduce, nitrogen loading to groundwater in DWSMAs | E | GWQ-3 | O | | | | | ● | | | DWSMAs | News Article; digital communications (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 5,000 | $ 2,500 | $ 2,500 | County | MDH MDA |
| GWQ-13 | Distribute education materials increasing resident awareness of groundwater issues, testing, and pollutant loading best practices | E | GWQ-1 | O | | | | | ● | | | Watershed-wide | News Article; digital communications (2 per year) | 4 | 4 | 4 | 4 | 4 | $ 10,000 | $ 5,000 | $ 5,000 | County | MDH MDA |
| GWQ-14 | Organize and/or facilitate meeting opportunities for public water suppliers to coordinate groundwater protection efforts | E | All GWQ goals | | | | | | ● | | | Public water suppliers | Meetings (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 10,000 | $ 10,000 | $ - | County | MDH MDA |
| GWQ-15 | Distribute education materials regarding private well maintenance, capping, and closure | E | GWQ-1, GWQ-6 | | | | | | ● | | | Watershed-wide | News Article; digital communications (1 per year) | X | X | X | X | X | $ 5,000 | $ 2,500 | $ 2,500 | County | MPCA |
| GWQ-16 | Host workshops for well maintenance | E | GWQ-1, GWQ-6 | | | | | | ● | | | Watershed-wide | Workshops (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 10,000 | $ 10,000 | $ - | SWCD County | MDH |
| GWQ-17 | Provide technical assistance and cost-share assistance to address private wells with high arsenic levels | P | GWQ-6 | | | | | | ● | | | Watershed-wide | Cost-share projects (25 over 10 years) | 5 | 5 | 5 | 5 | 5 | $ 50,000 | $ 25,000 | $ 25,000 | | |
| GWQ-18 | Contract a nutrient management expert as a shared service to provide technical assistance | P | GWQ-3, GWQ-4 | O | | | | O | ● | | | Watershed-wide | Staff position and associated services | X | X | X | X | X | $ 800,000 | $ 400,000 | $ 400,000 | SWCD | County MDA MDNR |
| | | | | | | | | | | | | | | | | | GWQ SUBTOTAL: | | $ 1,820,000 | $ 1,075,000 | $ 745,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 2,350,000 | $ 1,075,000 | $ 1,275,000 | | |
| GWS-1 | Provide educational materials regarding groundwater conservation practices used within the watershed, seeking feedback from existing practitioners (MS4 communities, other agencies, public water suppliers) | E | GWS-1 | | | | | | | ● | | Watershed-wide (with focus on public water suppliers) | Handouts; Newsletters; Articles; Digital communication (1 per year) | X | X | X | X | X | $ 50,000 | $ 40,000 | $ 10,000 | County | Cities MDNR |
| GWS-2 | Work with MDNR and other partners to develop/revise a groundwater quantity monitoring strategy | S | GWS-2 | | | | | | | ● | | Watershed-wide (with focus on public water suppliers) | Monitoring Plan | | X | | | | $ 5,000 | $ 5,000 | $ - | County | MDNR |
| GWS-3 | Review available data and work with MDNR to establish groundwater quantity trends in the watershed | S | GWS-2 | | | | | | | ● | | Watershed-wide | Monitoring report | | | X | | | $ 50,000 | $ 50,000 | $ - | County | MDNR |
| | | | | | | | | | | | | | | | | | GWS SUBTOTAL | | $ 105,000 | $ 95,000 | $ 10,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 105,000 | $ 95,000 | $ 10,000 | | |
| FWH-1 | Provide local technical assistance in support of wetland restoration and other natural resource projects | P | FWH-1, FWH-2, FWH-3 | | | O | | | | | ● | Watershed-wide | Number of projects for which assistance provided (1 every 2 years) | 1 | 1 | 1 | 1 | 1 | $ 50,000 | $ 50,000 | $ - | SWCD | MDNR |
| FWH-2 | Distribute education materials addressing protection of biologically significant elements in the watershed to adjacent landowners | E | FWH-2 | | | | | | | | ● | Areas of biological significance | News articles; digital communications (1 per year) | 2 | 2 | 2 | 2 | 2 | $ 10,000 | $ 5,000 | $ 5,000 | SWCD | MDNR |
| FWH-3 | Review and recommend updates, as needed, to zoning and land use regulations to promote the protection of sites of biological significance, wetlands, and habitat areas | R | FWH-1, FWH-2, FWH-3 | | | | | | | | ● | Areas of biological significance | Updated Ordinance(s) | | X | | | | $ 10,000 | $ 10,000 | $ - | SWCD County | MDNR |
| FWH-4 | Work with MDNR and other partners to provide local technical assistance in support of invasive species management and other natural resource projects | P | FWH-2, FWH-4 | | | | | | | | ● | Watershed-wide | Number of projects for which assistance provided (1 every 2 years) | 1 | 1 | 1 | 1 | 1 | $ 50,000 | $ 50,000 | $ - | SWCD | MDNR MDA |
| FWH-5 | Maintain a database of invasive species presence in the watershed (U of MN has extensive mapping/inventory of IS priority areas) | P | FWH-4 | | | | | | | | ● | Watershed-wide | GIS Database | X | X | X | X | X | $ 10,000 | $ 10,000 | $ - | SWCD | MDNR MDA UMN Ext |

Table X Lower Minnesota River West Comprehensive Watershed Management Plan Implementation Schedule version 1 - 11/24/2021

| Item ID | Implementation Action Description | Type (P = Project S = Study E = Educ. R = Reg.) | Applicable Goals (see Table X-X) | Applicability to Goal Areas: Tier 1 – Degraded Surface Water Quality | Tier 1 – Accelerated Erosion and Sedimentation | Tier 1 – Altered Hydrology | Tier 1 – Excessive Flooding | Tier 2 – Degraded Soil Health | Tier 2 – Groundwater Contamination | Tier 3 – Threatened Groundwater Supply | Tier 3 – Threats to Fish, Wildlife, and Habitat | Target or Focus Area | Measurable Output | Timeframe (Values are incremental for each 2-year period): 2023 to 2024 | 2025 to 2026 | 2027 to 2028 | 2029 to 2030 | 2031 to 2032 | Estimated Total Cost | Estimated Local Contribution (landowner, SCWD/County locally budgeted/ assessed) | Estimated External Contribution (WBIF, competitive grants, federal, 319) | Lead LGU | Supporting Entities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FWH-6 | Coordinate efforts of county weed inspectors and facilitate sharing of information, as needed | P | FWH-4 | | | | | | | | ● | Watershed-wide | Annual meeting; as needed communication | X | X | X | X | X | $ 10,000 | $ 10,000 | $ - | SWCD County | MDNR |
| FWH-7 | Provide technical assistance and cost-share support for the development of invasive species management plans | P | FWH-4 | | | | | | | | ● | Watershed-wide | Invasive species mgmt plans (5 over 10 years) | 1 | 1 | 1 | 1 | 1 | $ 15,000 | $ 15,000 | $ - | SWCD | MDNR |
| | | | | | | | | | | | | | Invasive species mgmt plans (10 over 10 years) | 2 | 2 | 2 | 2 | 2 | $ 30,000 | $ 15,000 | $ 15,000 | SWCD | MDNR |
| FWH-8 | Host outreach and education events for lake associations or other interested stakeholder groups regarding natural resource protection | E | FWH-2, FWH-4 | o | | | | | | | ● | Priority lake watersheds | 10 events over 10 years | 2 | 2 | 2 | 2 | 2 | $ 20,000 | $ 10,000 | $ 10,000 | SWCD HICWD | MDNR |
| | | | | | | | | | | | | | | | | | FWH SUBTOTAL | | $ 175,000 | $ 160,000 | $ 15,000 | | |
| | | | | | | | | | | | | | | | | | | | $ 190,000 | $ 160,000 | $ 30,000 | | |
| | | | | | | | | | | | | | | | | | PLAN TOTAL: | | $ 16,350,000 | $ 6,567,250 | $ 9,782,750 | Base funding scenario | |
| | | | | | | | | | | | | | | | | | | | $ 22,190,000 | $ 7,474,750 | $ 14,715,250 | Additional funding scenario | |

**Notes:** Estimated costs for Regulatory and Administrative Activities include only the estimated incremental/additional cost relative to the implementation of current programs

Red text indicates estimated outputs/costs if additional external funding becomes available

● = implementation activity directly benefits the priority issue

o = implementation activity may indirectly benefit the priority issue

ADM = Administration of Partnership

ESC = Accelerated Erosion and Sedimentation

SWQ = Degraded Surface Water Quality

AHD = Altered Hydrology and Drainage

FLD = Excessive Flooding

SLH = Degraded Soil Health

GWQ = Protection of groundwater and drinking water quality

GWS = Threatened Groundwater Supply

FWH = Threats to Fish, Wildlife, and Habitat